

First there was acid rain, which tends to render lake waters sterile. Now comes "the green hand in the sea," which is Victor Smetacek's name for too much fertility. Smetacek is a marine biologist at the Alfred Wegener Institute for Polar and Ocean Research in Bremerhaven, Germany, and he is quoted in the April 1990 issue of **Science**, under a Berlin dateline in the News & Comment section.

The most visible manifestations of that green hand are the red tides, yellow foams, and outbreaks of clinging emerald slime that constitute phytoplankton blooms, says the article. On a small scale, such blooms are part of the natural cycle of the sea, but by supplying extra nourishment, human activities probably have upset this orderly round in many parts of the world. Smetacek has compiled a casebook of "exceptional phytoplankton blooms," all increasingly toxic" and spelling death for much of the life in the oceans' margins, where 30 percent of the seas' productivity occurs.

At the Ocean Margin Processes in Global Change workshop, held in Berlin March 18-23, 1990, there was strong consensus that whether these conditions reflect global changes or not, there are things going on in ocean margins around the world that will have critical consequences – and soon.